Program Description I Page 1 of 5

Program Title   Roulette Game

Contributor's Name   John Nelson

Address   1226 E. University Ave.

City   Des Moines   **State**   Iowa   **Zip Code**   50316

Program Description, Equations, Variables   Program generates an integer number between zero and thirty-six, stores it and checks the players bet. If the player wins, the program pays off at the odds previously calculated and adds the winnings to that players account. If the player loses, the program subtracts the bet from the players account.

   Bets are allowed on single numbers, ranges such as 1 thru 12, 13 thru 24 or any range the player wishes, and bets on odd or even.

   Odds are calculated at the following rates :

        Single number - 35 to 1

        Range numbers - from the formula : 36/(HIGH - LOW + 1) to 1.

        Odd or Even   - 1 to 1

You can also run the spin-wheel routine and the bet checking routine separately and even have the calculator tell you whether you are high or low before you make your bet.

Operating Limits and Warnings

007330

Sketch(es)

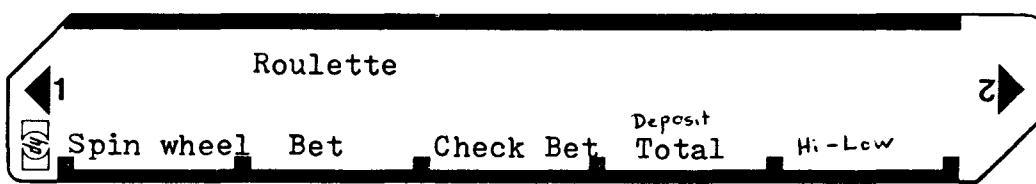**Sample Problem(s)**   Note - Use a seed of .3148216 for this sample.

A player deposits 150.00 to his account(# 1)

1-He then places a bet of $20. on numbers 1 thru 12.
      The wheel is spun and he loses his $20. when 24 comes up.

2-He then places a bet of $15. on numbers 13 thru 24.
      The wheel is spun and he wins $30. when the number 15 comes up.

IMPORTANT - READ THIS CAREFULLY. The program expects user to enter
the players account number during a two second pause in the program.
You can identify this place as follows - After pressing C the program
will pause the actual # spun, then print or flash the win/loss. Then
your win/loss will be paused for two seconds. This is when the acct.
number must be entered.

Solution(s) keystrokes- .3148216 fA 150 ENTER 1 fD gives 150.
1) 20ENTER 1.12B gives 0. Then press C gives "24"; "-20.";"-20."
      Now give account number 1 gives 130. (new balance)
2) 15 ENTER 13.24 B   0.   C   "15" number paused
                                          "30." winning flashed/printed
                                          "30." paused for acct #
      1   160. new balance

Reference(s)

```
   Roulette
Spin wheel  Bet    Check Bet  Deposit Total   Hi-Low
```

STEP	INSTRUCTIONS	INPUT DATA/UNITS	KEYS		OUTPUT DATA/UNITS
1	Load Program				
2	Store a seed	seed	f	A	seed
3	Enter a deposit to your account	Amount	↑		
		Acct #	f	D	
4	Place a bet				
	a. Bet amount	Bet Amt	↑		
	b. Number or Code as follows ;				
	number between 1 and 36	n			
	or 1.12 for nbrs between 1 & 12				
	or 13.24 for nbrs between 13 & 24				
	or 25.36 for nbrs between 25 & 36				
	or any other range in the format				
	low.high	l.h			
	or 0. for odd numbers				
	or .2 for even numbers				
5	Enter Bet for processing odds etc.		B		0.
6	Spin and see if you win		C		"number"
	C will both spin the wheel and check				:win/loss:
	the bet for win or lose. You could				
	do this separately by pressing A				
	then pressing f c.				
7	Enter your account number while the				
	win/loss is being paused. The pause				
	immediately follows a flashing or				
	printing of the win/loss amount.				
8	To display your account balance at any time,	Acct. #	D		
9	To deposit more money into your acct	Amount	↑		
		Acct. #	f	D	
10	To get an advantage (i.e. to cheat)				
	you may play with the A key and f c				
	instead of just C and check the bet				
	for high or low before betting. To do				
	this : a. Spin the wheel		A		
	b. enter a guess number	guess	E		0.7 or
	Read display upside-down				14.
	0.7 = Low 14. = High				
	Flashing Zero = Right On!				

STEP	KEY ENTRY	KEY CODE	COMMENTS	STEP	KEY ENTRY	KEY CODE	COMMENTS
001	f LBL A	31 25 11			h RTN	35 22	
	RCL 0	34 00			f LBL 0	31 25 00	
	h π	35 73			1	01	
	+	61		060	STO 4	33 04	
	5	05			CLx	44	
	h y^x	35 63			h RTN	35 22	
	g FRAC	32 83			f LBL 1	31 25 01	
	STO 0	33 00			3	03	
	EEX	43			5	05	
010	3	03			STO 4	33 04	
	x	71			CLx	44	
	f INT	31 83			h RTN	35 22	
	3	03			f LBL C	31 25 13	
	7	07		070	f GSB A	31 22 11	
	÷	81			g LBL C	32 25 13	
	g FRAC	32 83			DSP 0	23 00	
	3	03			RCL 4	34 04	
	7	07			3	03	
	x	71			5	05	
020	f INT	31 83			g x=y	32 51	
	STO 3	33 03			GTO 2	22 02	
	CLx	44			RCL 1	34 01	
	h RTN	35 22			f INT	31 83	
	f LBL B	31 25 12		080	f x=0	31 51	
	STO 1	33 01			GTO 3	22 03	
	h R↓	35 53			RCL 3	34 03	
	STO 2	33 02			h x≤y	35 52	
	RCL 1	34 01			g x≤y	32 71	
	f x=0	31 51			GTO 4	22 04	
030	GTO 0	22 00			f LBL 9	31 25 09	
	1	01			RCL 3	34 03	
	g x>y	32 81			h PAUSE	35 72	
	GTO 0	22 00			RCL 2	34 02	
	h R↓	35 53		090	CHS	42	
	g FRAC	32 83			f -x-	31 84	
	f x=0	31 51			h PAUSE	35 72	
	GTO 1	22 01			h PAUSE	35 72	
	h LSTx	35 82			1	01	
	f INT	31 83			0	00	
040	h x≤y	35 52			+	61	
	EEX	43			h STI	35 33	
	2	02			RCL 2	34 02	
	x	71			STO -(i)	33 51 24	
	-	51		100	h RCI	35 34	
	h ABS	35 64			h LSTx	35 82	
	1	01			-	51	
	+	61			GTO D	22 14	
	3	03			f LBL 2	31 25 02	
	6	06			RCL 3	34 03	
050	h x≤y	35 52			RCL 1	34 01	
	÷	81			g x=y	32 51	
	f INT	31 83			GTO 8	22 08	
	1	01			GTO 9	22 09	
	-	51		110	f LBL 3	31 25 03	
	STO 4	33 04			h LSTx	35 82	
	CLx	44			.	83	

REGISTERS

0 seed	1 Bet nbr	2 Bet Amount	3 number from wheel	4 Odds	5	6	7	8	9
S0	S1	S2	S3	S4	S5	S6	S7	S8	S9

A	B	C	D	E	I

STEP	KEY ENTRY	KEY CODE	COMMENTS
	2	02	
	h x≷y	35 52	
	g x≠y	32 61	
	GTO 0	22 00	
	f GSB 7	31 22 07	
	h F? 0	35 71 00	
	GTO 9	22 09	
120	f LBL 8	31 25 08	
	RCL 2	34 02	
	RCL 4	34 04	
	x	71	
	STO 2	33 02	
	RCL 3	34 03	
	h PAUSE	35 72	
	RCL 2	34 02	
	f -x-	31 84	
	h PAUSE	35 72	
130	h PAUSE	35 72	
	1	01	
	0	00	
	+	61	
	h STI	35 33	
	RCL 2	34 02	
	STO + (i)	33 61 24	
	h RCI	35 34	
	h LSTx	35 82	
	-	51	
140	GTO D	22 14	
	f LBL 4	31 25 04	
	RCL 1	34 01	
	g FRAC	32 83	
	EEX	43	
	2	02	
	x	71	
	RCL 3	34 03	
	g x≤y	32 71	
	GTO 8	22 08	
150	GTO 9	22 09	
	f LBL 0	31 25 00	
	f GSB 7	31 22 07	
	f F? 0	31 71 00	
	GTO 8	22 08	
	GTO 9	22 09	
	f LBL 7	31 25 07	
	RCL 3	34 03	
	2	02	
	÷	81	
160	g FRAC	32 83	
	f x=0	31 51	
	GTO 4	22 04	
	h SF 0	35 51 00	
	h RTN	35 22	
	f LBL 4	31 25 04	
	h CF 0	35 61 00	
	h RTN	35 22	
	f LBL D	31 25 14	

STEP	KEY ENTRY	KEY CODE	COMMENTS
	1	01	
170	0	00	
	+	61	
	h STI	35 33	
	RCL (i)	34 24	
	h RTN	35 22	
	f LBL E	31 25 15	
	RCL 3	34 03	
	g x>y	32 81	
	GTO 7	22 07	
	g x≠y	32 51	
180	GTO 0	22 00	
	1	01	
	4	04	
	h RTN	35 22	
	f LBL 7	31 25 07	
	.	83	
	7	07	
	DSP 1	23 01	
	h RTN	35 22	
	f LBL 0	31 25 00	
190	CLx	44	
	f -x-	31 84	
	h RTN	35 22	
	g LBL d	32 25 14	
	1	01	
	0	00	
	+	61	
	h STI	35 33	
	h R↓	35 53	
	STO + (i)	33 61 24	
200	h RTN	35 22	
	g LBL a	32 25 11	
	STO 0	33 00	
	h RTN	35 22	
210			
220			

LABELS

A Spin Wheel	B Bet	C Spin & Check Bet	D Display Balance	E Check for Hi-Low
a Store seed	b	c Check Bet Only	d Deposit to Account	e
0	1	2	3	4
5	6	7	8	9

FLAGS

| 0 Off = even On = Odd |
| 1 |
| 2 |
| 3 |

SET STATUS

FLAGS		TRIG	DISP
ON	OFF		
0 ☐	☒	DEG ☒	FIX ☒
1 ☐	☒	GRAD ☐	SCI ☐
2 ☐	☒	RAD ☐	ENG ☐
3 ☐	☒		n 0